CLAIMS

What is claimed is:

1   1.   A method to be performed by a data processing system comprising:

2   providing distributed queuing of workflows, whose execution is requested by one

3 or more execution-requesting clients, among a plurality of workflow engines; and

4   if a workflow is completed by a first workflow engine for an execution-requesting

5 client, sending an explicit and delayed acknowledgement to the execution-requesting

6 client, else assigning the workflow to a second workflow engine.

1   2.   The method recited in claim 1, wherein providing is performed by a load

2 manager.

1   3.   The method recited in claim 2, wherein the load manager comprises a

2 commercially available middleware product.

1   4.   The method recited in claim 1, wherein the explicit and delayed

2 acknowledgement is performed by a certified messaging capability.

1   5.   The method recited in claim 4, wherein the certified messaging capability

2 is performed by a load manager.

1   6.   The method recited in claim 4, wherein the load manager comprises a

2 commercially available middleware product.

1   7.   The method recited in claim 4, wherein the certified messaging capability

2 is performed by a certified message receiver forming part of the workflow.

1   8.   The method recited in claim 4 and further comprising:

2   the certified messaging capability sending an explicit and delayed

3   acknowledgement to the execution-requesting client if the workflow is completed by the

4   second workflow engine.

1   9.   A method to be performed by a computer network comprising a plurality

2   of clients and a plurality of workflow engines:

3   providing distributed queuing of workflows, whose execution can be requested by

4   one or more execution-requesting clients, among the plurality of workflow engines; and

5   determining whether a workflow has been completed by a first workflow engine

6   on behalf of an execution-requesting client; and

7   if so, sending an explicit and delayed acknowledgement to the execution-

8   requesting client;

9   otherwise, assigning the workflow to a second workflow engine.

1   10.   The method recited in claim 9, wherein providing is performed by a load

2   manager.

1   11.   The method recited in claim 10, wherein the load manager comprises a

2   commercially available middleware product.

1   12.   The method recited in claim 9, wherein sending is performed by a

2   certified messaging capability.

1   13.   The method recited in claim 12, wherein the certified messaging

2   capability is performed by a load manager.

1   14.   The method recited in claim 12, wherein the load manager comprises a

2   commercially available middleware product.

1   15.   The method recited in claim 12, wherein the certified messaging

2   capability is performed by a certified message receiver in the workflow.

1   16.   The method recited in claim 12 and further comprising:

2   the certified messaging capability sending an explicit and delayed

3   acknowledgement to the execution-requesting client if the workflow is completed by the

4   second workflow engine.

1   17.   A computer adapted for use in a computer network comprising a plurality

2   of workflow engines, the computer executing a computer program, the computer

3   program operating the computer in a fault-tolerant manner and comprising the operations

4   of:

5   requesting a workflow execution on behalf of a client;

6   a distributed queuing capability assigning the workflow execution to a first

7   workflow engine;

8   determining whether the workflow execution has been completed by the first

9   workflow engine; and

10   if so, sending an explicit and delayed acknowledgement to the client;

11   otherwise, assigning the workflow execution to a second workflow engine.

1   18.   The computer recited in claim 17, wherein requesting is performed by a

2   load manager.

1   19.   The computer recited in claim 17, wherein sending is performed by a

2   certified messaging capability.

1   20.   The computer recited in claim 19, wherein the certified messaging

2   capability is performed by a certified message receiver in the first workflow engine.

1 21. The computer recited in claim 19 and further comprising:

2 the certified messaging capability sending an explicit and delayed

3 acknowledgement to the client if the workflow execution is completed by the second

4 workflow engine.

1 22. A computer network comprising:

2 a plurality of clients;

3 a plurality of workflow engines; and

4 at least one computer program, the computer program operating the computer

5 network in a fault-tolerant manner and comprising the operations of:

6 requesting a workflow execution on behalf of a client;

7 a distributed queuing capability assigning the workflow execution to a first

8 workflow engine;

9 determining whether the workflow execution has been completed by the first

10 workflow engine; and

11 if so, sending an explicit and delayed acknowledgement to the client;

12 otherwise, assigning the workflow execution to a second workflow engine.

1 23. The computer network recited in claim 22, wherein requesting is

2 performed by a load manager.

1 24. The computer network recited in claim 22, wherein sending is performed

2 by a certified messaging capability.

1 25. The computer network recited in claim 24, wherein the certified

2 messaging capability is performed by a certified message receiver in the first workflow

3 engine.

1   26.   The computer network recited in claim 24 and further comprising:

2   the certified messaging capability sending an explicit and delayed

3   acknowledgement to the client if the workflow execution is completed by the second

4   workflow engine.

1   27.   A computer-readable medium containing computer instructions for

2   instructing a processor, the processor adapted for use in a computer network comprising

3   a plurality of workflow engines, wherein the instructions comprise:

4   requesting a workflow execution on behalf of a client;

5   a distributed queuing capability assigning the workflow execution to a first

6   workflow engine;

7   determining whether the workflow execution has been completed by the first

8   workflow engine; and

9   if so, sending an explicit and delayed acknowledgement to the client;

10   otherwise, assigning the workflow execution to a second workflow engine.

1   28.   The computer-readable medium recited in claim 27, wherein requesting is

2   performed by a load manager.

1   29.   The computer-readable medium recited in claim 27, wherein sending is

2   performed by a certified messaging capability.

1   30.   The computer-readable medium recited in claim 29, wherein the certified

2   messaging capability is performed by a certified message receiver in the first workflow

3   engine.

1 31. The computer-readable medium recited in claim 29 and further

2 comprising:

3 the certified messaging capability sending an explicit and delayed

4 acknowledgement to the client if the workflow execution is completed by the second

5 workflow engine.